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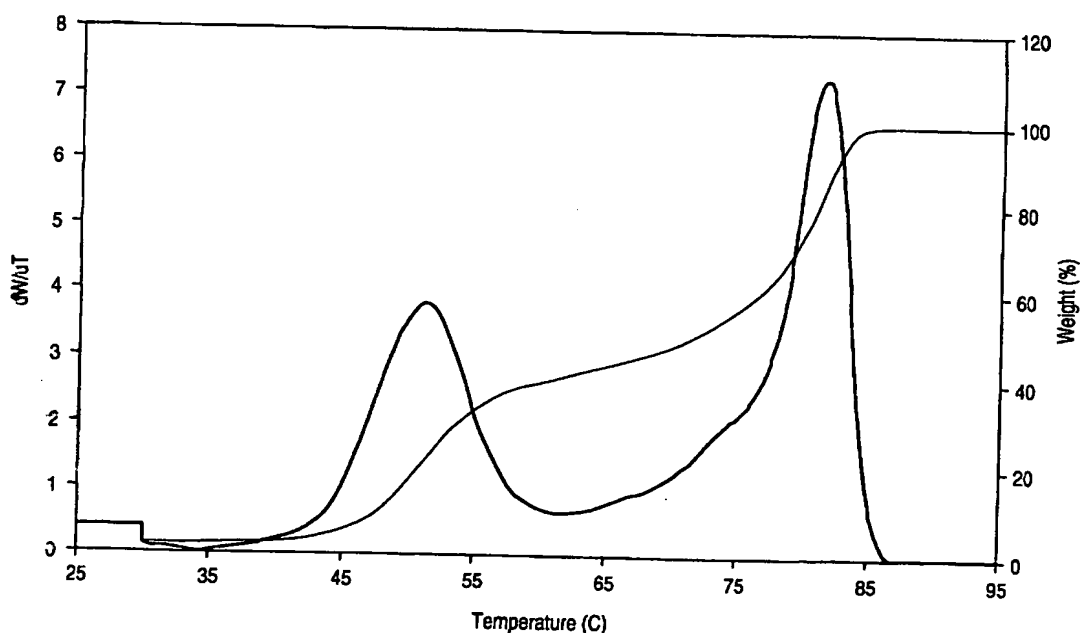
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[Continued on next page]

(54) Title: FILM LAYERS MADE FROM POLYMER BLENDS



(57) Abstract: Film layers made from formulated polymer compositions are disclosed. Film layers made from such formulated compositions have surprisingly good heat seal properties, and an especially good reduction in heat seal initiation temperature. The polymer compositions preferably have at least one homogeneously branched ethylene/alpha-olefin interpolpolymer and at least one heterogeneously branched ethylene polymer. The homogeneously branched ethylene/alpha-olefin interpolpolymer has a density lower than that of the formulated composition and of the heterogeneously branched ethylene polymer.



Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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INTERNATIONAL SEARCH REPORT

International Application No

US2004/002329

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C08L23/04 C08L23/08 B32B27/32 C08J5/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C08L B32B C08J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/32771 A (CHUM PAK WING S ; DOW CHEMICAL CO (US); JAIN PRADEEP (US); OSWALD THOM) 10 May 2001 (2001-05-10) the whole document	1-9
X	US 5 677 383 A (CHUM PAK-WING STEVE ET AL) 14 October 1997 (1997-10-14) the whole document	1-9

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

8 June 2004

Date of mailing of the international search report

03 FEB 2005

Name and mailing address of the ISA

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Droghetti, A

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/002329

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.: 10, 15
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 10, 15
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1 - 9

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 10,15

1. Present claims 10 and 15 relate to a product defined by reference to a desirable characteristic or property, namely the presence of peaks in a defined temperature range as determined by a crystaf scan. The claims cover all products having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products and compounds.

In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible.

Independent of the above reasoning, the claims also lack clarity (Article 6 PCT).

An attempt is made to define the product by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to remaining claims 1-9 and 11-14.

2. Furthermore present claims 10,15 relate to a vague parameter such as the peaks in a temperature range as determined by a crystaf scan. In particular it is not clear what these crystaf scan determination and the related peaks refer to and which technical feature they define.

The use of these parameters in the present context is considered to lead to a lack of clarity within the meaning of Article 6 PCT. It is impossible to compare the parameters the applicant has chosen to employ with what is set out in the prior art. The lack of clarity is such as to render a meaningful complete search impossible.

Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to remaining claims 1-9 and 11-14.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-9

film from a composition comprising (A) at least one homogenously branched interpolymer having density, MWD, MI2 and no high density fraction as claimed and (B) at least one heterogenously branched interpolymer having density as claimed.

2. claims: 11-14

A multi-layer heat shrinkable film comprising an outer layer from a polymer composition of (A) a homogenous component having MI2 and density as claimed and (B) an heterogenous component having MI2 and density as claimed.

INTERNATIONAL SEARCH REPORT

International Application No
US2004/002329

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